Input Pattern (LSBs,2 bits)				All Frames (Carry)			
00	00	00	00	0	0	0	0
00	00	00	00	0	0	0	0
01	01	01	01	0	1	0	1
01	01	01	01	0	0	0	0
10	10	10	10	0	1	0	1
10	10	10	10	1	0	1	0
11	11	11	11	1	0	1	0
11	11	11	11	1	1	1	1

FIG. 1 (PRIOR ART)

Input Pattern (LSBs, 2 bits)		1st Frame (Carry)		2nd Frame (Carry)		3rd Frame (Carry)		4th Frame (Carry)	
00	00	0	0	0	0	0	0	0	0
00	00	0	0	0	0	0	0	0	0
01	01	1	0	0	1	0	0	0	0
01	01	0	0	0	0	0	1	1	0
10	10	1	0	0	1	1	0	0	1
10	10	0	1	1	0	0	1	1	0
11	11	0	1	1	0	1	1	1	1
11	11	1	1	1	1	1	0	0	1

FIG. 2A (PRIOR ART)

Input Pattern (LSBs, 2 bits)		1st Frame (Carry)		2nd Frame (Carry)		3rd Frame (Carry)		4th Frame (Carry)	
00	00	0	0	0	0	0	0	0	0
00	00	0	0	0	0	0	0	0	0
01	01	1	0	0	0	0	0	0	1
01	01	0	0	0	1	1	0	0	0
10	10	1	0	0	1	1	0	0	1
10	10	0	1	1	0	0	1	1	0
11	11	0	1	1	1	1	1	1	0
11	11	1	1	1	0	0	1	1	1

FIG. 2B (PRIOR ART)

Input Pattern (LSBs, 2 bits)		1st Frame (Carry)		2nd Frame (Carry)		3rd Frame (Carry)		4th Frame (Carry)	
00	00	0	0	0	0	0	0	0	0
00	00	0	0	0	0	0	0	0	0
01	01	1	0	0	0	0	1	0	0
01	01	0	0	1	0	0	0	0	1
10	10	1	0	0	1	1	0	0	1
10	10	0	1	1	0	0	1	1	0
11	11	0	1	1	1	1	0	1	1
11	11	1	1	0	1	1	1	1	0

FIG. 2C (PRIOR ART)

Input Pattern (LSBs, 2 bits)				1st Frame (Carry)				2nd Frame (Carry)				3rd Frame (Carry)				4th Frame (Carry)			
00	00	00	00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00	00	00	00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00	00	00	00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
01	01	01	01	0	0	1	0	0	0	0	1	0	1	0	0	1	0	0	0
01	01	01	01	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1
10	10	10	10	1	0	1	0	0	1	0	1	1	0	1	0	0	1	0	1
10	10	10	10	0	1	0	1	1	0	1	0	0	1	0	1	1	0	1	0
10	10	10	10	1	0	1	0	0	1	0	1	1	0	1	0	0	1	0	1
11	11	11	11	1	1	1	0	1	1	0	1	1	0	1	1	0	1	1	1
11	11	11	11	0	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1
11	11	11	11	1	1	0	1	1	0	1	1	0	1	1	1	1	1	1	0

FIG. 3A

Table (FIG. 3B):

Input Pattern (LSBs, 2 bits)				1st Frame (Carry)					2nd Frame (Carry)					3rd Frame (Carry)					4th Frame (Carry)					
00	00	00	00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00	00	00	00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01	00	00	00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
01	01	00	00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0
01	01	01	00	1	0	1	0	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0
00	00	00	00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	10	10	10	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1
10	10	10	10	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
11	11	11	11	0	1	1	1	1	1	0	1	1	0	1	1	0	1	1	0	1	0	0	1	0
11	11	11	11	1	1	0	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	0	1

FIG. 3B